

August/September 2006:

- » Why Free Standards Matter
- » Your Beeline to Customers
- » By the Numbers

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## THE CEO PERSPECTIVE

### Jonathan on Why Free Standards Matter

The promise of the Internet is unlike anything the world has ever seen before. But without free standards its potential is at risk. Throughout our 24-year history, Sun has been committed to free standards. With that in mind, I encourage all of you to get involved in the Open Document Format (ODF) Alliance or any other project that drives open standards for your business' interests — and for the public's interest.

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Find out what Sun's CEO and president is thinking



## LEADING VISION

### How the Network Becomes Your Beeline to Customers

In this comprehensive interview, Sun Services Vice President and CTO Dan Berg discusses business trends that are changing the way IT services are delivered, the effect on new products and revenue models, and the critical importance of ongoing conversations with customers.

READ THE Q&A NOW »

## EXPERT INSIGHT

### The Art and Science of ROI

Pressure has increased on both business and IT leaders to be better versed in what value they get out of their investments. Against this backdrop of renewed emphasis on accountability, Amir Hartman, leader of TCO and ROI specialist Mainstay Partners, discusses the science — and art — of quantifying the benefits of technology.

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## Free Standards Are Essential

*By Jonathan Schwartz*

I believe that all pervasive technologies ultimately evolve into social utilities. One of my favorite examples is electricity. What started as a luxury for one very wealthy man, J. P. Morgan, became a technology that governments around the world invested in to empower their citizenry. It took almost a decade for those deploying electricity to settle on a few standards, but standardized electricity transformed economies and created opportunity for billions of people across the globe.

Electricity is not alone. All social utilities require standardization to stimulate development, remove barriers to participation, and expand the market. In the 19th century, moving goods around the United States was incredibly inefficient and expensive. Why? Because freight had to be loaded, unloaded, and then re-loaded whenever differing railways connected — they all had their own proprietary set of rail sizes, widths, and gauges.

Over time, wiser minds prevailed and standards were set. Railroad companies saw a massive increase in the opportunity to sell — not rails — but locomotives, rail cars, shipping services, and freight to be shipped on those rail cars. Standards enabled a rising tide, a far broader market, and big efficiencies in manufacturing and service delivery. Next time you think about Java think about it as the standard rail gauge for the Internet.

### **The Very Real Risk of Proprietary Technology**

Now scroll forward 150 years or so and imagine you live on a sleepy street in a coastal town, say Rio de Janeiro, and a hurricane or tsunami hits your shores. And the government agency responsible for telling you how and where to get relief uses proprietary technology that prevents some citizens from gaining access to emergency services.

This isn't an imaginary scenario — it happened in New Orleans last year.

It seems plainly wrong for a government to suggest that its citizens purchase any type of software before reading a storm warning or applying for disaster relief. In a democratic society, agencies, corporations or individuals that serve the public's interest should be free to do so without burdening their constituents with an obligation to purchase one company's product.

Rather than stand by, we are working with you — our customers and partners alike — along with a broad range of competitors and a cross section of global industry and library associations. We are all banded together around the Open Document Format (ODF) Alliance to promote a standard for the free interchange of document-based information. A standard that doesn't require any one company's technology, or a royalty check or fear of patent litigation. A standard that leverages a common interest in having a free, open and neutral standard to which any company, individual or government can subscribe.

The promise of the Internet is unlike anything the world has ever seen before. It heightens transparency, broadens economic opportunity, speeds social progress, and drives efficiency. And there is nothing but more opportunity over the horizon. But without free standards that potential is at risk.

### **Sun's Commitment to Free Standards**

Throughout our 24-year history, Sun has been committed to free standards. We have devoted our technical expertise and creativity to developing and promoting the architectural standards — from TCP/IP and network file systems to Java technology — that create the largest market opportunity for the largest possible community. We want to provide a level playing field so that businesses and public services, and the IT infrastructures that power them, can equally share the benefits that standards bring to bear: simplicity, scalability, security and driving down the overall cost of building and maintaining IT systems.



#### » **Jonathan's Blog**

Find out what Sun's CEO and president is thinking

I encourage all of you to get involved in the ODF Alliance or any other project that drives open standards for your business' interests — and for the public's interest. There's no better way to expand the market than to tear down the barriers to choice.

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## How the Network Becomes Your Beeline to Customers



The network has forever changed the landscape in which services are delivered to consumers. Vice President, CTO, and Distinguished Engineer for Sun Services Dan Berg shares with *Executive Boardroom* readers the trends and forces that are allowing companies to more quickly and efficiently respond to consumer needs in the new service economy.

**Q: What are the business trends driving change in the ways services are delivered?**

**A:** There are four key trends that have come to the forefront in my discussions with customers and CIOs in different IT departments. One is standardization. There is a high degree of standardization taking place, not just at a technical level (operating systems, chip architectures, etc.) but also at an operations level where we are seeing better cohesion of industry standards and best practices. We are seeing data centers and IT operations look more homogenous across different companies, even different industries. In the past, data centers were much more customized, from their technical infrastructure implementation to the operational procedures they followed.

A second trend is community. We are seeing communities stretch beyond the borders of enterprises into interest groups. Best practices are being discussed outside of company borders. We are finding that the community can play a bigger role in solving problems and identifying new ideas, and companies are finding unique ways to leverage one another. As an industry, we haven't previously had that. I think the challenge for a lot of companies is figuring out how to play with these communities and work them to their advantage.

The third trend is utility computing/grid computing. Obviously Sun has an interest in this, but if you look at industries in general as they go through their evolution, they go from custom to standard to utility. There's no reason why the computing industry wouldn't go through the same lifecycle. Almost every major industry goes through this, because when you start up with something, it's unique in nature and that's its differentiation. Over time, the differentiation comes from other things — deployment models, etc. We've seen that to some degree in the software space; deployment models for software are vastly different than they used to be.

Lastly, I'll mention a trend I call telemetry. By this, I mean a trend toward connecting consumers to the organizations that provide value to them such that continuous value is injected into the relationship and the consumer is providing continuous feedback to the product in terms of how they are using it, what they value, and so forth. Companies are then taking that information and acting upon it quickly to provide new, unique, custom services back to the consumer. It's about creating value from knowing more about your consumer. I don't think there is a single business on the planet that wouldn't appreciate more information about its consumers.

**Q: What is the new service economy?**

**A:** The new service economy is simply creating an ecosystem so that you have information exchanges between consumer and producer. Telemetry is the currency of the new services economy. The conversation that we have with a customer is critical. It's probably the most valuable thing a service-oriented economy can have, because, at the end of the day, services are what provide value to a customer.

If you're going to innovate service offerings, you need to know more about how consumers are using your products and what they value. Those things change rapidly, and being able to react to those changes is critical. In an ideal world, this information exchange is transparent to the consumer — the product just tells the producer what they need to know to provide more value.

**Q: How can a company use IT to create new services, offerings, and revenue models?**

**A:** If, in the new service economy, you have information on a continual basis, it becomes difficult not to create new services, offerings, and revenue models. You need to find those discontinuities and fill in the gaps. The problem has always been guessing what the consumer wants.

IT companies are in a position where new services can be created rapidly and new value can be derived and delivered. It's incumbent upon companies to create a relationship with customers so that producing the offerings they value becomes more streamlined.

**Q: You often speak of the transformation of IT as a service. What does that mean exactly?**

**A:** It is many of the things I've mentioned, but at a higher level I'll say that IT as a service provides many of the functions that an IT operations would today, but as a service. An example would be e-mail and messaging. That's something every company on the planet provides to its employees to interact with each other. The mail and messaging service has traditionally been provided by each company separately.

We are in a world now which has a well-connected network and bandwidth. IT departments don't necessarily need to invest in an e-mail system. Rather they could just use a service to provide that capability in a secure manner. The question then becomes: how do you move more of the capabilities you have offered as a custom solution within your enterprise to a service for your partners or customers?

**Q: How does IT as a service speed up the process of innovation and how does it benefit customers?**

**A:** The process of innovation is pretty interesting. Using something like the capability to do your taxes, for example, you would design something, develop it, test it, and distribute it. Then people would install it, and you would need an infrastructure to support it, and finally, that application could be utilized.

I can develop something and almost immediately make that application or utility available to the network as a service, and I can immediately start getting feedback through telemetry about what's working, what's valuable, what's not. This significantly shortens the cycle by getting rid of distribution, the installation process, and configuration. You could even allow some customers to have it before it is finished, to look at and start using.

Google does this. They take new services, toss them up there, often without advertising them, and see how people use them. Google maps started this way. They determine which functions people favor and incrementally improve the value of the service until at some point it's deemed finished.

**Q: What are some of the disruptive business opportunities within services?**

**A:** I think the disruptions include closing some of the time gaps as we've discussed, the fact that lifecycles are changing, and the fact that things can be developed and given to consumers more rapidly than in the past. Just closing that gap is very disruptive in that you have faster time-to-market with products and services that you release. Once you start doing that, there are unlimited ways in which you can become disruptive by providing consumers value you didn't know they wanted based on the feedback you've received from them.

Grid computing is a major disruption for small companies to develop new offerings for their markets because it provides the infrastructure they couldn't afford to invest in before.

IT as a service, moving more and more things to the network, is probably the most disruptive thing a company can do to achieve competitive advantage and faster time to market.

Instead of speed and capacity-based metrics, we're moving toward value-based metrics.

**Q: What are the metrics of the future with regard to services?**

**A:** Traditionally, we've measured ourselves in terms of how much is selling and how satisfied a customer is. While those don't change, the level of granularity for which we can get metrics is new. Using the grid example, you can look at things like CPU-cost-per-hour or gigabytes per dollar. You can determine what the scalable costs of something are and then begin assigning costs per transaction. If I wanted to measure the cost of payroll transactions I could find out that it cost me "X" dollars per payroll transaction. Then my goal over time is to reduce that versus trying to extract that information from a data center which may have aggregated costs, but not costs for given components. That's delivering IT as a service.

You can now also measure how a consumer is using something. What value are they extracting and how often can you sample that? In traditional service models you only hear from the customer when they have a problem. With telemetry, we can do some intriguing things to measure how effective we are in servicing that customer.

If I know a customer's hardware installation, their operating system version or patch level, their application stack, etc., then I know their exact configuration. So if I know of a problem or bug, I can push the patch or solution to them, specific to their environment. They won't be inundated with irrelevant information. And business managers can make better decisions when they can evaluate costs at a transaction or usage level rather than for the entire environment.

**About Dan Berg**

Daniel J. Berg is vice president and chief technology officer for services at Sun Microsystems. In this position, Berg is responsible for the technical strategy and direction of Sun's services organization. Berg also holds the title of Distinguished Engineer. Berg has had a number of other technical and business roles at Sun, including positions in technical sales, professional services, engineering, and customer service. Before joining Sun, Berg held positions at IBM and Honeywell.

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## The Art and Science of ROI

In today's business environment, the strongest competitors do more than respond to market changes — they anticipate them. But to forecast trends, the IT and business sides of an organization must work in concert toward the same goals, dovetailing their efforts for maximum speed and effectiveness. In the “do more with less” era of shrinking IT budgets and rising expectations, companies cannot afford anything less than top performance from the systems they choose, which is why consulting firms like Mainstay Partners have developed particular expertise in analyzing total cost of ownership (TCO) and return on investment (ROI) for technology projects.

Founded in 2001 and based in San Mateo, California, Mainstay Partners is led by co-founder and managing director Amir Hartman. Mainstay consultants have completed hundreds of engagements with some of the most prominent and respected companies in the world. Sun recently spoke with Hartman about his perspective on TCO and ROI analysis.

**Sun: What's the advantage of hiring an ROI specialist rather than simply analyzing costs and benefits in-house?**

**Hartman:** Companies can certainly measure TCO and ROI on their own. But we've done hundreds of these studies, so we can refer to particular industry benchmarks and recommend best practices based on our own experience.

Objectivity is also a huge benefit to customers. Thanks to compliance regulations like Sarbanes-Oxley, pressure has increased on both business and IT leaders to be more versed in what value they get out of their investments. There's a need for more accountability, and sometimes an outside perspective is the best way to achieve that.

**Sun: How do clients typically use the information from TCO and ROI analysis?**

**Hartman:** Technology providers can use these studies to generate credible proof points for their products. In that arena, our objectivity is a big deal. We don't have any incentive to find particular benefits, so our findings carry more weight with buyers than internal studies conducted by the technology provider.

On the enterprise side, companies use the findings as justification for future or further investments. It's also quite common for executives to use the findings to build political capital — a way to show leadership by quantifying the good things their teams have done.

**Sun: What types of companies are looking for help in analyzing TCO and ROI?**

**Hartman:** There are typically two kinds of clients. First, there are technology providers. They want fact-based, quantified proof points that demonstrate the value their solutions can provide to users.

Then there are enterprise customers who are the buyers of technology. Customers can perform a study either before or after they implement a new solution. Often companies ask us to analyze a solution they have already implemented. Others are about to make a significant investment, and the board or the executive team wants to validate that investment.

**Sun: What happens in the process of working with a client on an ROI study?**

**Hartman:** Again, the most important thing clients need to realize is that ROI consultants aren't working to find either good or bad results — we're just trying to find results. We're an independent third party. We try to provide an accurate picture of the truth, which isn't always visible from a single vantage point within an organization. And we go beyond how much was spent and what benefits were received. We really try to put the solution into its proper context.

How did things look before, and how do they look now? What were the key operational improvements and key performance indicators or metrics?

For example, on a Mainstay engagement, our deliverable is usually a 30- to 50-page storyboard, often in PowerPoint presentation form, that puts our findings into context based on the history of the customer's strategies and challenges. We put together a snapshot: how did things look before, and how do they look now? What were the key operational improvements and key performance indicators or metrics? And then, of course, we analyze the financials — total cost and benefits realized. We try to draw a rich picture, not just a spreadsheet.

We gather all this information through a series of interview workshops with key constituents at the customer. We talk with the line executives, an end user who actually touches the solution on a regular basis, and an IT person who maintains the solution. We also like to have a finance person because finance people are usually very conservative. We want to make sure that person buys into our findings, since he or she is the one signing the check for the system.

Typically, if you go to one of these people and ask what benefits he or she is seeing, you'll get one of two answers — either "I don't know" or "nothing." Unfortunately, that's not good enough for our process. When we get those answers, we have a dialog to try to peel back the onion. We want to paint the picture of how things were before the solution. How many people used to support the solution? How many people support it today? Sometimes we have to coax the information out of the people we interview, since it isn't always on the tips of their tongues.

Depending on the scope of the assessment, this interview process can take anywhere from one day to maybe three days. Then we go back and crunch the numbers to build the storyboard. After we have the basic story fleshed out, it's an iterative process to get the customer to truly understand the storyboard and buy into the facts that we put on the table. Because if we just say hey, here's what we found, see you later and good luck, that's no good. We need customers to really understand our analysis and believe that what we've found is true so they can make solid decisions.

**Sun: TCO and ROI can seem like fairly abstract concepts sometimes. How do you calculate value for a technology system?**

**Hartman:** We're pretty conservative on that front. Often, companies make the mistake of not getting a full picture of what a solution costs. It's not just the acquisition costs, but also the support and post-implementation costs. We look at hardware software, consulting effort, internal manpower on both the IT and business sides, and any licensing or maintenance fees. We break it down into the components that go into the equation and project those costs out over five years. So we show customers what it costs not only to build but actually to run the solution, and we put all of that information in the context of the organization's overall goals and culture. After all, ROI calculation is a science, but it's also an art.

**About Amir Hartman**

Prior to forming Mainstay Partners, Amir Hartman was the managing director for Cisco Systems' Corporate Internet Strategy and the Internet Business Solutions Group. In this role he was responsible for shaping Cisco's Internet business strategy and advising key customers in the same capacity. An international best-selling author and sought-after advisor to senior business leaders in a broad cross-section of industries, Hartman also teaches at both Columbia's Graduate School of Business and Berkeley's Haas School of Business.